

Amendments to the Specification

Please replace the paragraph at page 6, lines 5-17, with the following amended paragraph:

The supercritical removal process 40 of the present invention is illustrated, as a block diagram, in FIG. 3. The supercritical removal process 40 begins by placing the wafer, with the photoresist and the residue on the wafer, within a pressure chamber and sealing the pressure chamber in a first process step 52. Embodiments of the present invention can be used to process wafers of various sizes, including those having diameters of 3, 4, 5, 6, 8, 12, or more inches. In a second process step 54, the pressure chamber is pressurized with carbon dioxide until the carbon dioxide becomes the supercritical carbon dioxide (SCCO₂). In a third process step 56, the supercritical carbon dioxide carries a solvent into the process chamber. In a fourth process step 58, the supercritical carbon dioxide and the solvent are maintained in contact with the wafer until the photoresist and the residue are removed from the wafer. In the fourth process step 58, the solvent at least partially dissolves the photoresist and the residue. In a fifth process step 60, the pressure chamber is partially exhausted. In a sixth process step 62, the wafer is rinsed. In a seventh process step 64, the supercritical removal process 40 ends by depressurizing the pressure chamber and removing the wafer.

Please replace the paragraph from page 7, line 27, to page 8, line 8, with the following amended paragraph:

Preferably, in operation, the transfer module robot 80 transfers the workpiece 118 from the first hand-off station 92 to the etch module 74, where the dielectric etch step 38 is performed. Next, the transfer module robot 80 transfers the wafer 118 from the etch module 74, to the transfer module 72, and to the ante-chamber 77 of the supercritical processing module 76. The second gate valve 108 then closes and the ante-chamber 77 is preferably pressurized with carbon dioxide. In one embodiment, the ante-chamber 77 is pressurized to a pressure similar to a processing pressure within the supercritical processing module 76. In a preferred embodiment, this pressure generated within the ante-chamber 77 is at least 1,000 psi, and is generated using supercritical CO₂, inert gases, nitrogen, or any similar gases. Next, the ante-chamber robot 79 transfers the workpiece 118 from the ante-chamber 77 to the supercritical processing module 76,

where the supercritical removal process 40 is performed. Following this, the workpiece is removed from the supercritical processing module 76 to the ante-chamber 77 by the ante-chamber robot 79. Next, the ante-chamber is evacuated by a vacuum pump (not shown). Preferably, the vacuum pump comprising a turbo-pump. Then, the second gate valve 108 opens and the transfer module robot 80 transfers the workpiece 118 from the supercritical processing module 76 to the deposition module 78, where the metal deposition step 42 is performed. Subsequently, the transfer module robot 80 transfers the workpiece 118 from the metal deposition module 78 to the second hand-off station 94.

Please replace the paragraph from page 13, line 30, to page 14, line 5, with the following amended paragraph:

A first alternative supercritical processing module of the present invention replaces the pressure chamber 136 and gate valve 106 with an alternative pressure chamber. The alternative pressure chamber comprises a chamber housing and a hydraulically driven wafer platen. The chamber housing comprises a cylindrical cavity which is open at its bottom. The hydraulically driven wafer platen is configured to seal against the chamber housing outside of the cylindrical cavity. In operation, the wafer is placed on the hydraulically driven wafer platen. Then, the hydraulically driven wafer platen moves upward and seals with the chamber housing. Once the wafer has been processed[.], the hydraulically driven wafer platen is lowered and the wafer is taken away.